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# Water Supply Outlook For Oregon



SOIL CONSERVATION SERVICE  
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

OREGON DEPARTMENT OF WATER RESOURCES

AS OF  
**FEB. 1, 1979**



## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*COVER PHOTO: VIEW OF A SNOTEL DATA SITE IN THE SNOWY RANGE IN WYOMING. TALL CYLINDRICAL DEVICE IS A PRECIPITATION GAGE. SNOW PILLOWS ON THE GROUND NOT VISIBLE DUE TO SNOW COVER. SHELTER HOUSE, ANTENNA TOWER, ANTENNA, AND TEMPERATURE UNIT ARE VISIBLE BEHIND THE PRECIPITATION GAGE.*

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



# **WATER SUPPLY OUTLOOK FOR OREGON**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued*

FEBRUARY 1, 1979

*Issued by*

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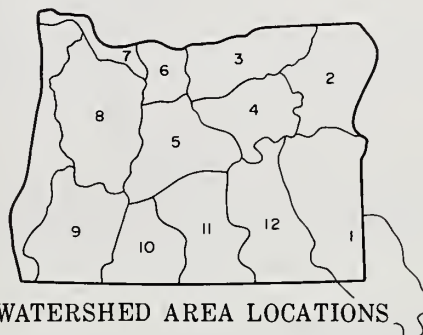
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# WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

FEBRUARY 1, 1979

February 1 snowpack is poor in western Oregon, below average in central Oregon and average in the northeast and southeast corners. Reservoir storage is slightly below the February 1 average. Precipitation has been generally below normal since November 1. Water supply forecasts reflect this condition.

## SNOW COVER

The snowpack is 10%-20% of average in the Siskiyou Mountains. The Cascades range from around 30% in the south to 55% in the north. Central and east-central Oregon generally range 70%-90% of average. The Klamath area ranges 25%-60% of normal. Northeast Oregon and the Owyhee areas are near average.

## PRECIPITATION

Precipitation from November 1 to February 1 has been below normal generally. Only Harney Basin and parts of northeastern Oregon are up to average. Other areas range from 50% to 85% of normal.

## SOIL MOISTURE

Soil moisture is below average at all reporting mountain stations.

## RESERVOIR STORAGE

As of February 1, twenty-five irrigation reservoirs were storing 1,699,200 acre feet which is 87% of average for the date.

## STREAMFLOW

January streamflow was much below average throughout the state. Discharge on representative streams ranged from 14% on the John Day River to 78% on the Deschutes at Moody.

## STREAMFLOW (CONT.)

Forecasts of representative Oregon streams are as follows:

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST</u> <u>% 1958072 AVG.</u>
Owyhee net Inflow	Apr.-Sept.	95
Malheur near Drewsey	Apr.-Sept.	79
Deschutes at Benham Falls	Apr.-Sept.	77
Grande Ronde at LaGrande	Apr.-Sept.	90
Willamette, Mid. Fk. near Oakridge	Apr.-Sept.	79
Upper Klamath Lake net Inflow	Apr.-Sept.	60
Rogue near Raygold	Apr.-Sept.	60
Silvies near Burns	Apr.-Sept.	83
Illinois near Kerby	Apr.-Sept.	30
*Columbia R. at The Dalles	Apr.-Sept.	72

\*National Weather Service forecast



This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

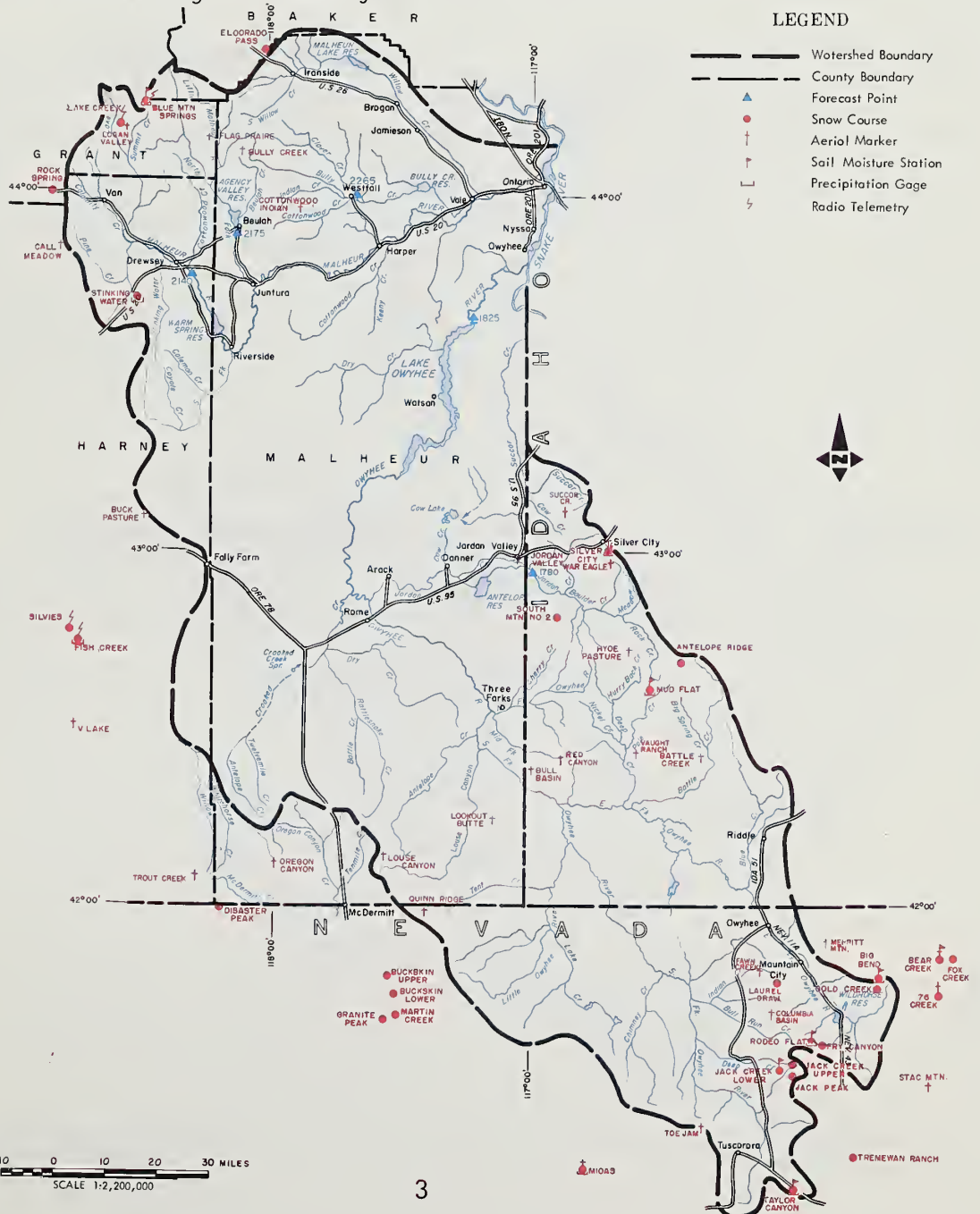
# WATER SUPPLY OUTLOOK

## OWYHEE, MALHEUR WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Water supply forecasts are for slightly below average streamflow, but no serious shortages are expected at this time. Forecasts range from 78% to 95% of normal. Snowpack ranged from 85% to 120%, one of the best areas of the state. January precipitation was 115% and seasonal precipitation has been 85% of average. Soil moisture was recorded at 79% of normal. Owyhee reservoir reported above average storage. Other area reservoirs are below average. Owyhee Reservoir inflow was 75% of average in January.





## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Bully Creek at Warm Springs	10.8	80	Mar.-May		13.5
Malheur near Drewsey	92	83	Feb.-July		110
	57	79	Apr.-Sept.		72
Malheur, North Fork at Beulah	65	80	Feb.-July		81
	50	78	Apr.-Sept.		64
Owyhee Reservoir net Inflow	485	95	Feb.-July	730	510
	315	95	Apr.-Sept.	457	332

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	1000 250	May 27 July 7	May 24 June 20

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Beulah Reservoir	60.0	14.5	15.6	27.9
Bully Creek	30.0	9.0	10.6	14.9
Owyhee	715.0	511.0	259.8	485.1
Warm Springs	191.0	72.1	23.9	95.2

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>c</sup>
Malheur River	2	70	79

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Jordan Creek	2	100	109
Malheur River	4	79	85
Owyhee River	6	121	120

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

## BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Forecasts are for near to slightly below average streamflow. No shortages are expected. Forecasts range from 79% to 92% of average. Precipitation was 119% in January and 100% of average for the season. Snowpack is 71% to 100% of average. Soils are relatively dry in the mountains. Reservoir storage is good. Present streamflow is low - the Grande Ronde at LaGrande had only 15% of normal flow in January.

#### LEGEND

- Watershed Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Marker
- ⬇ Soil Moisture Station
- ⌋ Precipitation Gage
- ⚡ Radio Telemetry



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Bear near Wallowa	61	92	Apr.-Sept.		66
Burnt near Hereford	41	85	Feb.-July		48
	28	85	Apr.-Sept.		33
Catherine near Union	59	91	Apr.-Sept.		65
Eagle Creek abv. Skull Creek	139	79	Apr.-July		175
	153	81	Apr.-Sept.		190
Grande Ronde at La Grande	177	90	Mar.-Sept.	272	197
	142	90	Apr.-Sept.	158	158
Hurricane near Joseph	40	85	Apr.-Sept.		47
Imnaha at Imnaha	269	88	Apr.-Sept.		307
Lostine near Lostine	103	82	Apr.-Sept.		125
Powder near Sumpter	45	82	Apr.-July		55
	46	82	Apr.-Sept.		56
Wallowa, East Fork near Joseph	11.0	86	Feb.-Sept.		12.8
	9.4	83	Apr.-Sept.		11.4
Wallowa at Joseph	42	--	May-July		--
Wolf Creek net Inflow	12.0	90	Mar.-June		13.3

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Phillips Lake	73.5	43.6	15.6	43.7 <sup>b</sup>
Thief Valley	17.4	17.0 <sup>a</sup>	17.4 <sup>a</sup>	15.5 <sup>b</sup>
Unity	25.2	11.2	12.2	12.5
Wallowa Lake	37.5	29.7	23.4	21.4
Wolf Creek	10.4	5.9	2.7	--

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Burnt River	3	74	75
Grande Ronde River above La Grande	4	121	100
Powder River	5	76	76
Wallowa, Imnaha, Catherine Creek	6	68	71

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>c</sup>
Burnt, Powder	2	74	83
Grande Ronde, Catherine Creek, Imnaha River	3	71	73

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

## GENERAL OUTLOOK

Normal streamflow is forecast for this area and no shortages are expected. Snowpack is normal or above. Precipitation in general, however, has been below normal - only 77% for the season. Reservoir storage is below average at both Cold Springs and McKay. Mountain soil moisture is low.

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SCALE 1:1,500,000



### LEGEND

- Watershed Boundary
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- T Soil Moisture Station
- L Precipitation Gage
- ⚡ Radio Telemetry

# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
McKay near Pilot Rock	25	103	Apr.-Sept.		24
Umatilla near Gibbon	95	98	Mar.-Sept.		97
	72	96	Apr.-Sept.		75
Umatilla at Pendleton	207	103	Mar.-Sept.		200
Walla Walla, South Fork near Milton	77	98	Mar.-Sept.		79
	64	97	Apr.-Sept.		66
Butter Creek near Pine City	11.3	99	Mar.-July		11.4

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 15	May 22

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average c
Cold Springs	50.0	16.8	29.0	28.5
McKay	73.8	29.5	29.3	34.4

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average c
Umatilla, Walla Walla, McKay Creek	3	60	62

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
McKay Creek	3	152	115
Umatilla River	3	155	108
Walla Walla River	2	139	100

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# UPPER JOHN DAY WATERSHEDS

## OREGON

## GENERAL OUTLOOK

Streamflow is forecast to be 85% to 90% of normal. The snowpack is 86% to 89% of average. Seasonal precipitation has only been 74% of average while January precipitation was 81% of average. Soil moisture recharge is not up to normal in the mountain areas. Present streamflow is low. The John Day River at Service Creek had only 14% of normal flow for January. Water supply forecasts for this area may be revised in future bulletins.





# STREAMFLOW FORECASTS

STREAMFLOW FORECASTS		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
Camas Creek near Ukiah	39	90	Mar.-July		43
	30	90	Apr.-Sept.		33
John Day, Middle Fork at Ritter	110	85	Mar.-July		129
	92	85	Apr.-Sept.		108
John Day, North Fork at Monument	549	85	Mar.-July		646
	459	85	Apr.-Sept.		540
Strawberry near Prairie City	6.5	90	Mar.-July		7.2
	6.8	90	Apr.-Sept.		7.6

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average c
John Day above Dayville	4	63	75
John Day, North Fork	2	68	76

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
John Day, North Fork	5	92	89
John Day abv. Dayville	5	94	86

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

## UPPER DESCHUTES, CROOKED WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Much below normal streamflow is forecast for this area. Forecasts range from 50% to 80% of normal. Snowpack is generally poor, ranging from 36% to 80% of average. Area precipitation for January was 102% of normal, but only 78% for the season. Some reservoirs have average storage for February 1, but others are less than average. Soil moisture is below average. January flow for the Deschutes at Moody was 78% of average.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year      Average c
Beaver Creek near Paulina	31	76	Feb.-July	41
	11.8	74	Apr.-Sept.	16.0
Crane Prairie Reservoir total Inflow	79	66	Apr.-Sept.	119
Crescent at Crescent Lake	10.5	50	Mar.-July	21
	11.0	50	Apr.-Sept.	22
Crooked near Post	135	79	Feb.-July	172
	71	78	Apr.-Sept.	91
Deschutes at Benham Falls	261	72	Apr.-July	360
	423	77	Apr.-Sept.	550
Deschutes below Snow Creek	49	66	Feb.-Sept.	74
	40	64	Apr.-Sept.	62
Deschutes, Little near La Pine	51	50	Feb.-July	102
	38	50	Apr.-July	76
Ochoco Reservoir net Inflow	27	80	Feb.-July	34
	15.4	82	Apr.-Sept.	18.8
Squaw near Sisters	30	60	Apr.-Sept.	50
Tumalo near Bend	26	60	Apr.-Sept.	44

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	300	1/ May 28	July 15
Crooked R. near Post	100	1/	June 1
Deschutes at Bend	1500	1/	July 1
Little Deschutes near La Pine	400	May 19	June 7
	200	June 1	July 8
1/ Issued April 1			

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average c
Crane Prairie	55.3	34.2	46.7	44.9
Crescent Lake	86.9	40.8	51.9	61.4
Ochoco	47.5	29.0	19.3	26.0
Prineville	153.0	92.3	92.6	101.1
Wickiup	200.0	156.3	149.2	156.4

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average c
Crooked R., Upper Deschutes River	2	74	80

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
Crooked, Ochoco	3	81	80
Deschutes abv. Wickiup	3	78	46
Little Deschutes	4	44	36
Tumalo & Squaw Crs.	3	76	49

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Water users should expect below normal supply. Streamflow forecasts for this area range from 60% to 75% of average. The area snowpack is about 55% of average. Area precipitation was 47% in January and 59% for the season. Reservoir storage is low.

10 0 10 20 MILES  
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# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Average <sup>c</sup>
Hood River near Hood River	172	60	Apr.-July	286
	199	60	Apr.-Sept.	332
Hood, West Fork near Dee	99	75	Apr.-July	132
	116	75	Apr.-Sept.	154
White below Tygh Valley	76	64	Apr.-July	118
	93	70	Apr.-Sept.	133

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*22	July 15-31	**39
* Average cfs forecast to flow for this two-week period.			
** Average cfs for period of record.			

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Clear Lake (Wasco)	11.9	0.1	3.4	3.9

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Hood River	5	82	56
Mile Creeks	--	--	--
White River	3	92	54

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

## LOWER COLUMBIA WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The Sandy River is forecast for about 80% normal discharge. The Columbia River at The Dalles is forecast at 72%. Snowpack in the Mt. Hood area is only about 55% of normal.





# SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>C</sup>
Sandy River	2	93	55

## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>C</sup>
Columbia at The Dalles *	52,675	72	Apr.-June		73,160
	74,700	72	Apr.-Sept.		104,426
Sandy River near Marmot	292	85	Apr.-July		342
	318	80	Apr.-Sept.		398
* National Weather Service Forecast					

## HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW <sup>d</sup> (1,000 A F)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

## LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

## GENERAL OUTLOOK

10 0 10 20 30 MILES  
SCALE 1:1,500,000



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Clackamas at Estacada	539	80	Apr.-July		674
	631	80	Apr.-Sept.		789
Clackamas above Three Lynx	405	80	Apr.-July		506
	483	80	Apr.-Sept.		604
McKenzie at McKenzie Bridge	370	82	Apr.-July		453
	498	83	Apr.-Sept.		598
McKenzie near Vida	854	82	Apr.-July		1,035
	1,062	84	Apr.-Sept.		1,262
McKenzie, So. Fork near Rainbow	164	78	Apr.-July		210
	193	80	Apr.-Sept.		239
Oak Grove Fork above Power Intake	98	80	Apr.-July		123
	130	80	Apr.-Sept.		162
Row near Dorena	78	80	Apr.-July		98
	82	80	Apr.-Sept.		102
Santiam, North at Mehama	651	85	Apr.-July		765
	760	87	Apr.-Sept.		872
Santiam, South at Waterloo	493	87	Apr.-July		564
	543	87	Apr.-Sept.		623
Willamette, Mid. Fk. blw. N. Fk. nr Oakridge	147	78	Apr.-July	462	678
	165	79	Apr.-Sept.	578	779
Willamette, No. Fk. of Mid. Fk. near Oakridge	517	76	Apr.-July		189
	611	79	Apr.-Sept.		209
Willamette at Salem	4,202	85	Apr.-Sept.		4,943

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Clackamas River	2	132	49
McKenzie River	3	124	39
Row River	2	68	29
Santiam River	4	129	43
Willamette, Mid. Fk.	5	68	35

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Blue River	85.6*	2.2	1.9	15.1 <sup>b</sup>
Cottage Grove	30.0*	0.8	0.8	3.1
Cougar	155.2*	0.5	9.3	26.1
Detroit	299.9*	13.6	5.0	59.2
Dorena	70.5*	1.7	1.7	13.6
Fall Creek	115.0*	2.7	1.6	15.0 <sup>b</sup>
Fern Ridge	94.2*	9.9	5.0	22.9
Foster	30.0*	0.6	0.9	1.2 <sup>b</sup>
Green Peter	270.0*	5.1	6.7	51.4 <sup>b</sup>
Hills Creek	200.0*	11.1	14.8	34.7
Lookout Point	337.2*	24.6	7.0	59.7
Timothy Lake	61.7	17.2	28.4	53.7
Henry Hagg Lake	53.0	30.9	35.7	--

\* Multiple purpose reservoir--space reserved primarily for flood runoff.

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



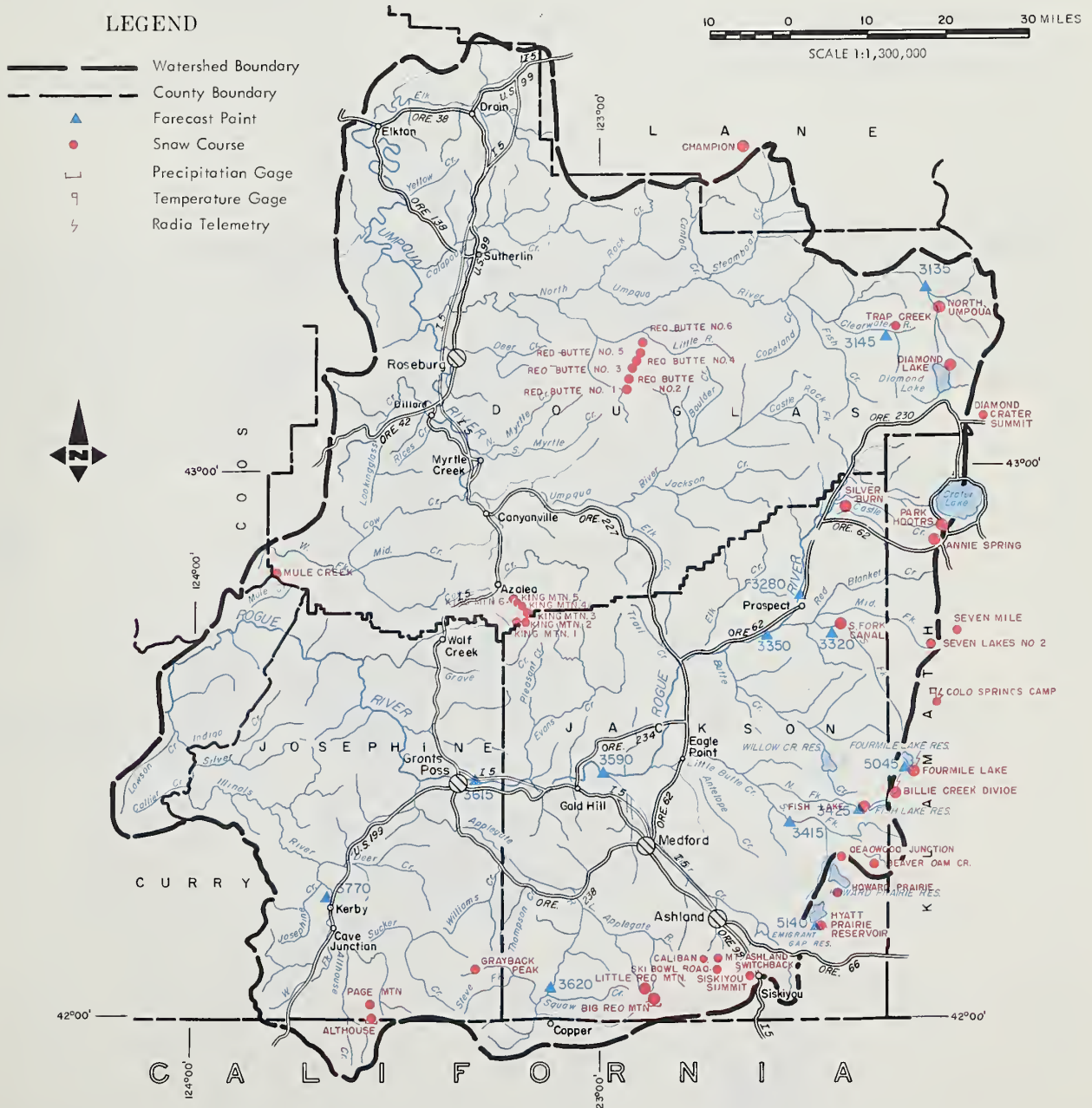
# WATER SUPPLY OUTLOOK

## ROGUE, UMPQUA, WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Water supply forecasts in this area are low. Water users should expect shortages. Forecasts range from 30% in the Siskiyou area to 80% on the Clearwater. Most streams are forecast in the 45% to 60% range. Snowpack was 10% to 32% of normal. Area precipitation was 57% for January and 50% for the season. Reservoir storage is generally below average. The Umpqua River near Elkton had 37% of normal and the Rogue River at Raygold had 51% of normal flow for January.





# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Applegate near Copper	40	30	Apr.-Sept.		133
Clearwater above Trap Creek	55	80	Apr.-Sept.		69
Fourmile Lake net Inflow	1.9	45	Apr.-Sept.		4.3
Hyatt Reservoir net Inflow	2.1	45	Apr.-July		4.6
Illinois River near Kerby	57	30	Apr.-July		191
	59	30	Apr.-Sept.		197
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	7.5	55	Apr.-Sept.		13.7
Little Butte, S. Fk. near Lake Creek	15.4	55	Apr.-Sept.		28
Rogue above Prospect	154	60	Apr.-July		256
Rogue, South Fork near Prospect	37	60	Apr.-July		61
	43	60	Apr.-Sept.		72
Rogue at Raygold near Central Point	441	60	Apr.-July	529	735
	534	60	Apr.-Sept.	691	890
Rogue at Grants Pass	434	58	Apr.-July		749
	516	58	Apr.-Sept.		890
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls*	118	71	Apr.-Sept.		160
* National Weather Service Forecast					

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	100	May 9	May 27

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Emigrant Lake	39.0	25.4	27.0	24.4
Fish Lake	8.0	5.4	4.5	5.9
Fourmile Lake	16.1	6.9	5.6	9.9 <sup>b</sup>
Howard Prairie	60.0	34.6	33.0	44.5
Hyatt Prairie	16.1	10.6	9.5	11.8
Lost Creek	315.0	172.4	--	--
* Average for years of record (in base period) after re-construction.				

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

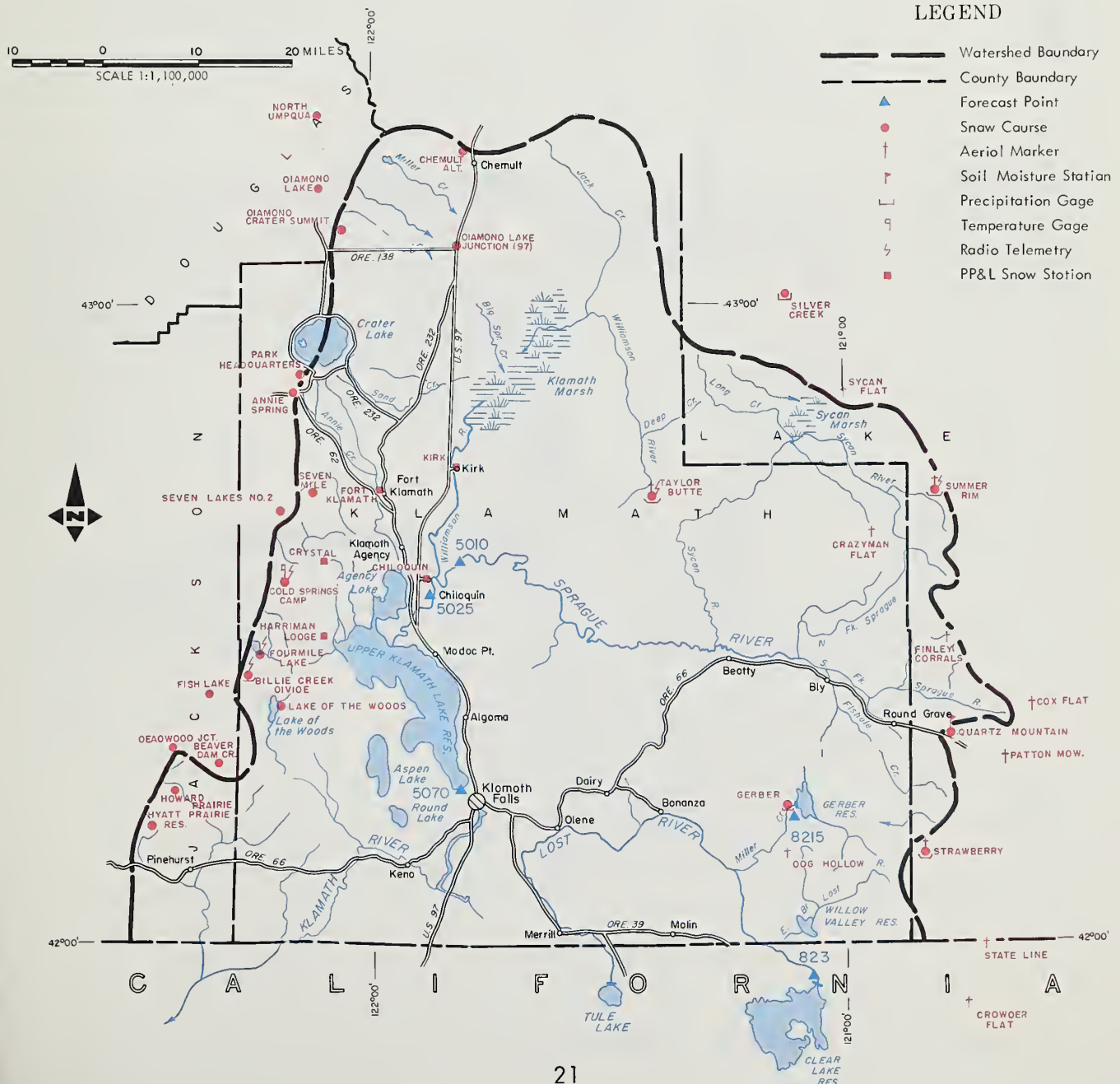
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Applegate	2	20	20
Bear Creek	2	23	28
Butte Creek	4	55	32
Illinois River	3	18	10
North Umpqua	3	53	32
Rogue River	4	37	26

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

## GENERAL OUTLOOK

This area should prepare for low water supply. Forecasts range from 40% to 60% of normal streamflow. Snowpack is from 24% to 60% of average. Soil moisture is below average. Precipitation was 95% of average in January but only 51% of average for the season. Upper Klamath Lake has near normal storage, but Clear Lake and Gerber are only about 65% of average for February 1.



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Clear Lake Reservoir Inflow	36	40	Feb.-July		92
Gerber Reservoir Inflow	18.1	42	Feb.-July		43
Sprague near Chiloquin	151	43	Feb.-Sept.		353
	105	44	Apr.-Sept.		242
Upper Klamath Lake net Inflow	514	57	Feb.-Sept.	899	899
	322	60	Apr.-Sept.	530	536
Williamson below Sprague River	308	50	Feb.-Sept.	613	615
	207	50	Apr.-Sept.	402	414

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>c</sup>
Upper Klamath	1	52	60

## RESERVOIR STORAGE (Thousand Ac. Ft.) ENO OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Clear Lake	440.2	148.3	167.1	235.2
Gerber	94.0	33.4	32.3	50.6
Upper Klamath Lake	584.0	349.2	370.9	372.6

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Lost River	4	80	60
Sprague River	2	32	43
Upper Klamath	5	32	30
Williamson River	3	23	24

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.





# STREAMFLOW FORECASTS

STREAMFLOW FORECASTS					
BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Chewaucan near Paisley	48	55	Mar.-July		87
Deep above Adel	47	60	Mar.-July		78
Drews Reservoir net Inflow	24	60	Mar.-July		40
Honey Creek near Plush	10.7	55	Mar.-July		19.5
Silver Creek near Silver Lake	8.2	60	Apr.-July		13.7
Twentymile near Adel	15.6	60	Mar.-July		26

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Chewaucan, Silver Creek, Drew Creek	1	52	60
Honey, Deep, 20-Mi. Cr.	1	80	89

## RESERVOIR STORAGE (Thousand Ac. Ft.)

END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Cottonwood	8.7	3.0	3.0	2.8 <sup>b</sup>
Drews	63.0	31.4	18.5	39.3 <sup>b</sup>
Thompson Valley	19.5	7.9	6.7	14.0 <sup>b</sup>
*Average for years of record (in base period) after reconstruction.				

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

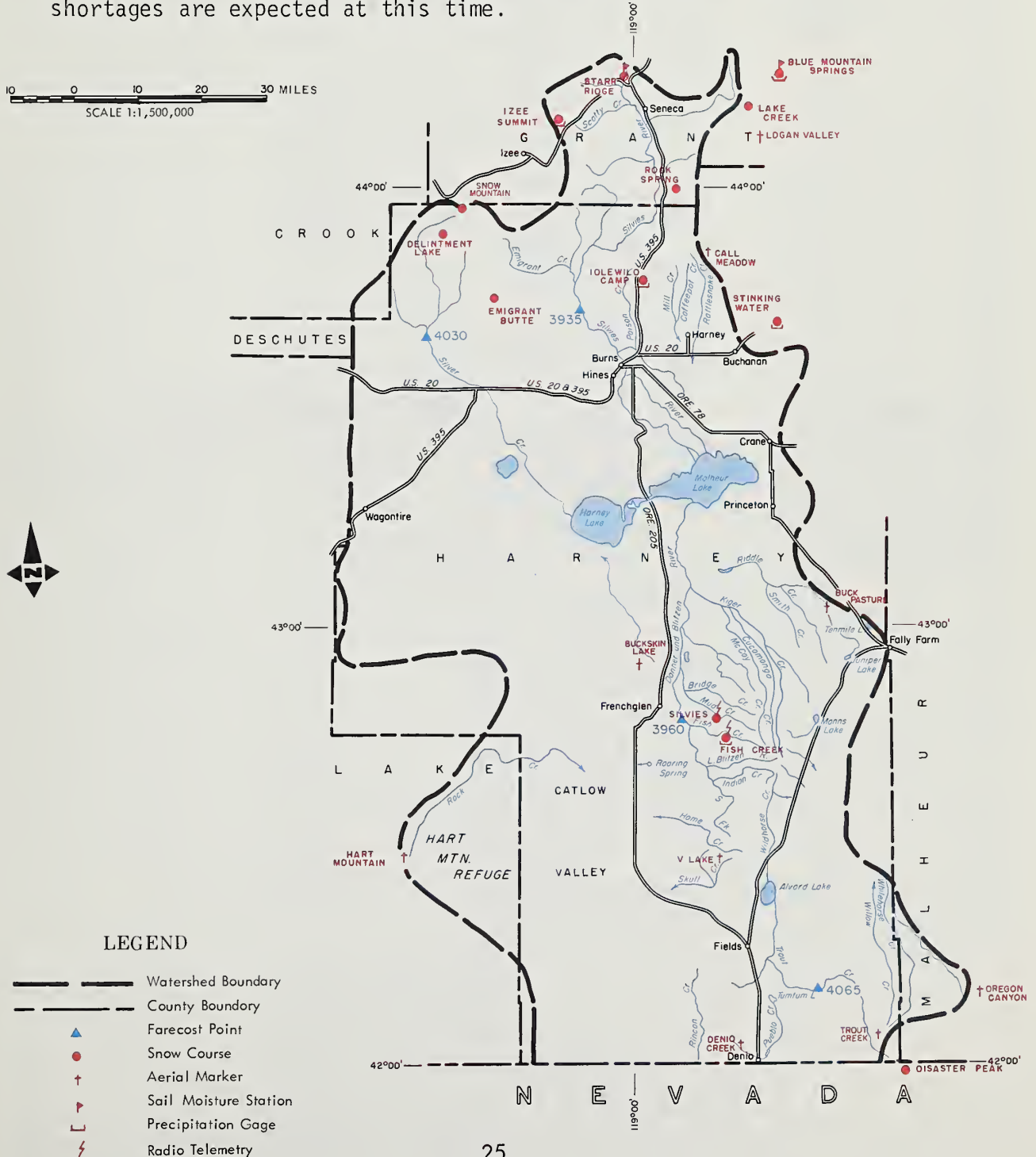
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Chewaucan River	3	31	43
Deep Creek	3	86	95
Drew Creek	3	78	57
Honey Creek	3	91	93
Silver Creek	3	51	52
Twentymile Creek	2	64	119

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

## GENERAL OUTLOOK

This area is trending towards near normal water supply. Forecasts run from 76% to 90% of average. Snowpack is near normal. Precipitation was 145% of average for January and 100% for the season. Water use should be well regulated but no serious shortages are expected at this time.



# STREAMFLOW FORECASTS

STREAMFLOW FORECASTS		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Donner und Blitzen near Franchglen	50	90	Mar.-July		55
	48	90	Apr.-Sept.		53
Silver near Riley	13.3	86	Apr.-July		15.6
Silvies River near Burns	82	87	Mar.-July	128	94
	61	83	Apr.-Sept.	93	74
Trout Creek near Denio	6.4	76	Mar.-July		8.4

## SOIL MOISTURE

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:		RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>			Last Year	Average <sup>c</sup>
Silvies River, Silver Cr.	3	75	83	Donner und Blitzen R.	--	--	--
Trout Cr., Donner und				Silver Creek	2	80	96
Blitzen River	--	--	--	Silvies River	4	105	96
				Trout Creek	--	--	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1979

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave.°C
OWYHEE, MALHEUR WATERSHEDS					
Antelope Ridge (Ida.)		e	--	5.0	
Battle Creek (Ida.) *	Late	Report	4.5	2.8	
Bear Creek (Nev.)	1/30	36	9.9	14.8	13.8
Big Bend (Nev.)	1/25	29	7.4	6.6	6.1
Blue Mountain Springs	1/30	35	7.9	10.9	12.1
Blue Mtn. Spgs. Plw.(S)	1/30	39	9.0	12.5	11.8
Blue Mtn. Spgs. Plw.(M)	1/30	--	10.2	14.0	9.0
Buck Pasture *	Late	Report	3.6	1.4	
Buckskin, Lower (Nev.)		e			
Buckskin, Upper (Nev.)					
Bull Basin (Ida.) *	Late	Report	3.6	1.3	
Bully Creek *	Late	Report	5.4	2.0	
Call Meadows *	Late	Report	8.9	2.5	
Columbia Basin (Nev.)	N/R		10.9	6.8	
Cottonwood-Indian *	Late	Report	2.4	0.7	
Disaster Peak (Nev.)		e			
Eldorado Pass	1/30	19	2.9	5.5	3.2
Fawn Creek (Nev.)	1/30	25	6.0	15.1	4.2
Fish Creek *	Late	Report	18.0	16.3	
Fish Creek		e			
Fish Creek Pillow(S)		e			
Fish Creek Pillow(M)		e			
Flag Prairie *	Late	Report	5.7	3.9	
Fox Creek (Nev.)	N/R		--	5.3	
Fry Canyon (Nev.)	1/25	22	5.6	4.6	5.2
Gold Creek (Nev.)	1/25	23	5.6	3.3	4.0
Granite Peak (Nev.)	N/R		--	10.4	
Hyde Pasture (Ida.) *	Late	Report	6.3	4.3	
Jack Creek, Lower (Nev.)		e	3.1	2.7	
Jack Creek, Upper (Nev.) *	1/25	32	8.5	6.1	4.2
Jack Peak (Nev.)	1/25	51	13.7	15.7	8.3
Lake Creek R.S.	1/30	33	6.9	--	--
Lake Creek R.S. Plw.(S)	1/30	33	8.0	8.5	--
Lake Creek R.S. Plw.(M)	1/30	--	6.5	3.7	6.9
Laurel Draw (Nev.) *	1/25	25	5.4	0.1	6.2
Logan Valley *	Late	Report	5.7	6.0	
Lookout Butte *	Late	Report	0.9	0.2	
Louse Canyon *	Late	Report	6.3	3.3	
Martin Creek (Nev.) *		e	--	7.2	
Merrit Mountain (Nev.) *	1/30	23	5.5	4.5	4.4
Midas (Nev.) *	1/30	15	3.6	4.9	2.3
Mud Flat (Ida.)		e	--	3.9	
Oregon Canyon *	Late	Report	4.8	3.7	
Quinn Ridge (Nev.) *	N/R		2.7	1.5	
Red Canyon (Ida.) *	Late	Report	8.1	5.8	
Rock Spring	1/31	25	5.4	--	--
Rock Spring Plw.(S)	1/31	24	5.5	--	--
Rock Spring Plw.(M)	1/31	--	4.0	--	--
Rodeo Flat (Nev.)	1/25	23	6.3	3.9	4.1
76 Creek (Nev.) *	1/30	25	6.2	8.8	7.8
Silver City (Ida.)	1/27	40	11.0	11.4	11.1
Silver City (Ida.) *	Late	Report	10.4	9.8	
Silvies *	Late	Report	7.2	5.8	
Silvies		e			
Silvies Pillow(S)		e			
Silvies Pillow(M)		e			
South Mountain #2 (Ida.)	1/27	40	10.4	10.1	9.9
Stag Mountain (Nev.) *	1/30	23	5.0	5.0	3.7
Stinking Water	1/26	16	3.2	4.0	2.1
Succor Creek (Ida.) *	Late	Report	3.5	3.8	
Taylor Canyon (Nev.)	1/25	19	3.8	3.8	4.0
Toe Jam (Nev.) *	1/30	32	8.0	10.4	7.2
Tremewan Ranch (Nev.) *	1/25	10	1.4	2.4	1.2
Trout Creek *	Late	Report	11.1	4.5	
"V" Lake	Late	Report	7.2	4.0	
Vaught Ranch (Ida.) *	Late	Report	6.0	3.2	
War Eagle (Ida.) *	Late	Report	21.8	16.3	

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave.°C
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
Aneroid Lake #1		e			
Aneroid Lake #2	1/30	42	10.4	20.2	22.9
Anthony Lake	1/26	51	14.5	15.2	18.2
Bald Mountain (OR) *	1/26	52	14.0	4.5	16.1 b
Beaver Reservoir (Rev.)	1/29	30	6.5	8.2	9.1
Beaver Res. Pillow(S)	1/29	31	8.7	--	--
Beaver Res. Pillow(M)	---				
Big Sheep *	1/26	41	11.1	20.8	19.7
Blue Mtn. Summit	1/25	26	6.1	7.5	6.9
Bourne	1/25	39	9.2	11.6	11.6
Bourne Pillow(S)	1/25	42	10.5	13.0	13.5 b
Bourne Pillow(M)	1/25	--	9.7	14.4	16.3 b
County Line	1/29	25	5.2	3.9	3.9
County Line Pillow(S)	1/29	25	5.0	--	--
County Line Pillow(M)	1/29	--	4.6	--	--
Dooley Mountain	1/29	23	4.7	6.3	6.4
Eilertson Meadows	1/25	33	7.4	8.4	8.7
Eilertson Meadows Plw.(S)	1/25	29	6.0	--	--
Eilertson Meadows Plw.(M)	1/25	--	3.0	--	--
Eldorado Pass	1/30	19	2.9	5.5	3.2
Gold Center	1/25	31	8.3	9.4	9.7
Gold Center Pillow(S)	1/25	30	7.2	--	--
Gold Center Pillow(M)	1/25	--	5.9	--	--
Goodrich Lake	1/25	56	19.2	--	27.2 b
Little Alps	1/26	33	6.9	7.0	9.2
Little Antone	1/26	27	5.6	4.8	5.9 b
Little Antone (Alt.)	1/26	30	6.6	4.3	5.8 b
Lucky Strike	1/26	36	8.9	8.4	8.6
Lucky Strike Pillow(S)	1/26	33	7.7	6.0	4.8 b
Lucky Strike Pillow(M)	1/26	--	10.8	3.2	8.6 b
Meacham	1/26	28	7.4	4.3	7.5
Mirror Lake *	1/26	98	26.5	52.5	47.4 b
Moss Spring	1/29	50	13.4	18.8	15.8
Moss Spring Pillow(S)	1/29	52	14.0	--	--
Moss Spring Pillow(M)	1/29	--	10.8	--	--
Mt. Howard	1/26	35	9.6	--	--
Schneider Meadow	1/26	50	13.4	24.6	21.8
Schneider Meadow Plw.(S)	1/26	50	13.4	--	--
Schneider Meadow Plw.(M)	1/26	--	11.3	22.1	--
Schoolmarm		e		--	2.9
Standley *	1/26	57	13.4	25.6	19.8 b
Taylor Green	1/29	42	11.4	11.8	12.5 b
Taylor Green Pillow(S)	1/29	44	13.3	15.3	--
Taylor Green Pillow(M)	1/29	--	13.0	--	--
Tipton	1/25	27	6.5	9.4	8.4
Tipton Snow Pillow(S)	1/25	32	8.0	11.0	10.8 b
Tipton Snow Pillow(M)	---			11.3	5.5 b
Tollgate	1/26	56	17.5	13.7	17.9
TV Ridge	1/26	30	8.1	11.5	12.8 b
West Eagle Meadows *	1/26	55	14.9	24.1	11.7 b
Wolf Creek Pillow(S)	1/25	36	8.8	11.0	6.4 b
Wolf Creek Pillow(M)	1/25	--	6.8	14.0	7.4 b
* Aerial					
N/R No Report					
T = Telemetry Measurement					
S = Snow Tube Measurement					
M = Manometer Measurement					

\* Aerial

N/R No Report

T = Telemetry Measurement

S = Snow Tube Measurement

M = Manometer Measurement



# BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1979

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave <sup>c</sup>

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave <sup>c</sup>

### UMATILLA, WALLA WALLA, WILLOW, ROCK,

#### LOWER JOHN DAY WATERSHEDS

Arbuckle Mountain	1/26	33	8.9	6.2	7.3
Arbuckle Mtn. Plw.(S)	1/26	42	10.7	12.0	7.7 <sup>b</sup>
Arbuckle Mtn. Plw.(M)	1/26	--	11.0	12.8	14.7
Blue Mountain Camp	1/26	37	12.9	8.2	12.1
Bowman Springs Plw.(S)	1/26	33	8.0	6.0	4.9 <sup>b</sup>
Bowman Springs Plw.(M)	1/26	--	10.3	6.9	9.0 <sup>b</sup>
Butte Creek Summit	1/15	17	3.0	--	0.7 <sup>b</sup>
Emigrant Springs	1/26	26	7.0	2.6	4.2
Emigrant Springs Plw.(S)	1/26	30	8.8	--	--
Emigrant Springs Plw.(M)	---	---	---	---	---
High Ridge Pillow(S)	1/26	58	18.1	16.9	20.0 <sup>b</sup>
High Ridge Pillow(M)	1/26	--	12.7	13.1	22.3 <sup>b</sup>
Lucky Strike	1/26	36	8.9	8.4	8.6
Lucky Strike Pillow(S)	1/26	33	7.7	6.0	4.8 <sup>b</sup>
Lucky Strike Pillow(M)	1/26	--	10.8	3.2	8.6 <sup>b</sup>
Madison Butte Pillow(S)	1/26	27	7.2	--	--
Madison Butte Pillow(M)	1/26	--	7.3	--	--
Meacham	1/26	28	7.4	4.3	7.5
Tollgate	1/26	56	17.5	13.7	17.9

#### UPPER JOHN DAY WATERSHEDS

Anthony Lake	1/26	51	14.5	15.2	18.2
Arbuckle Mountain	1/26	33	8.9	6.2	7.3
Arbuckle Mountain Plw.(S)	1/26	42	10.7	12.0	7.7 <sup>b</sup>
Arbuckle Mountain Plw.(M)	1/26	--	11.0	12.8	14.7
Blue Mountain Springs	1/30	35	7.9	10.9	12.1
Blue Mtn. Spgs. Plw.(S)	1/30	39	9.0	12.5	11.8 <sup>b</sup>
Blue Mtn. Spgs. Plw.(M)	1/30	--	10.2	14.0	9.0 <sup>b</sup>
Blue Mountain Summit	1/25	26	6.1	7.5	6.9
Butte Creek Summit	1/15	17	3.0	--	0.7 <sup>b</sup>
Derr	2/2	--	7.0 <sup>a</sup>	6.2	7.1
Derr Pillow(S)	---	---	---	---	---
Derr Pillow(M)	---	---	---	---	---
Gold Center	1/25	31	8.3	9.4	9.7
Gold Center Plw.(S)	1/25	30	7.2	--	--
Gold Center Plw.(M)	1/25	--	5.9	--	--
Indian Creek Butte *	Late Report				
Izee Summit	1/31	28	6.7	--	5.7
Lucky Strike	1/26	36	8.9	8.4	8.6
Lucky Strike Plw.(S)	1/26	33	7.7	6.0	4.8 <sup>b</sup>
Lucky Strike Plw.(M)	1/26	--	10.8	3.2	8.6 <sup>b</sup>
Marks Creek	1/27	15	4.0	0.0	2.8
Ochoco Meadows	1/31	22	4.3	7.8	6.7
Ochoco Mdws. Plw.(S)	1/31	26	6.5	9.5	--
Ochoco Mdws. Plw.(M)	1/31	--	5.0	--	--
Olive Lake *	1/25	38	8.7	--	13.4 <sup>b</sup>
Schoolmarm	<sup>e</sup>				
Snow Mountain	2/1	37	7.8	10.4	9.5 <sup>b</sup>
Snow Mountain Plw.(T)	2/1	--	6.4	5.5	5.3 <sup>b</sup>
Snow Mountain Plw.(S)	2/1	32	7.0	6.0	8.6
Snow Mountain Plw.(M)	---	---	---	---	---
Starr Ridge	1/31	24	5.6	4.1	4.6
Starr Ridge Plw.(S)	1/31	27	6.0	--	--
Starr Ridge Plw.(M)	1/31	--	3.1	--	--
Tipton	1/25	27	6.5	9.4	8.4
Tipton Pillow(S)	1/25	32	8.0	11.0	10.8 <sup>b</sup>
Tipton Pillow(M)	---	---	---	11.3	5.5 <sup>b</sup>

### UPPER DESCHUTES, CROOKED WATERSHEDS

Bald Peter	1/29	37	10.6	4.5	16.1
Caldwell Ranch	1/30	17	4.2	4.4	8.0
Cascade Summit	1/31	28	7.2	12.0	20.8
Cascade Summit Plw.(S)	1/31	35	8.4	--	--
Cascade Summit Plw.(M)	---	---	---	---	---
Chemult Alternate	1/31	13	2.0	8.8	6.2
Chemult Alt. Plw.(S)	---	---	---	---	---
Chemult Alt. Plw.(M)	---	---	---	---	---
Derr	2/2	--	7.0 <sup>a</sup>	6.2	7.1
Derr Pillow(S)	---	---	---	---	---
Derr Pillow(M)	---	---	---	---	---
Hogg Pass	1/31	46	12.4	14.4	28.4
Hogg Pass Pillow(S)	1/31	49	13.5	17.0	--
Hogg Pass Pillow(M)	1/31	--	10.2	16.9	--
Hungry Flat	2/2	13	3.7	3.0	4.4
Irish-Taylor Pillow(T)	1/31	--	11.1	--	28.5 <sup>b</sup>
Irish-Taylor Pillow(S)	1/31	39	11.4	14.5	28.1 <sup>b</sup>
Irish-Taylor Pillow(M)	1/31	--	7.6	11.4	--
Lionshead *	1/30	21	6.0	--	6.6 <sup>b</sup>
Marks Creek	1/27	15	4.0	0.0	2.8
New Crescent Lake	1/29	16	3.9	6.0	10.4
New Crescent Lake Plw.(S)	1/29	19	4.4	--	--
New Crescent Lake Plw.(M)	---	---	---	---	---
New Dutchman Flat #2	2/2	53	17.5	23.6	35.4
Ochoco Meadows	1/31	22	4.3	7.8	6.7
Ochoco Meadows Plw.(S)	1/31	26	6.5	9.5	--
Ochoco Meadows Plw.(M)	1/31	--	5.0	--	--
Racing Creek	1/29	26	5.8	8.2	7.7 <sup>b</sup>
Snow Mountain	2/1	37	7.8	10.4	9.5 <sup>b</sup>
Snow Mountain Plw.(T)	2/1	--	6.4	5.5	5.3 <sup>b</sup>
Snow Mountain Plw.(S)	2/1	32	7.0	6.0	8.6 <sup>b</sup>
Snow Mountain Plw.(M)	---	---	---	---	---
Summit Lake Pillow(T)	1/31	--	7.6	--	15.7 <sup>b</sup>
Summit Lake Pillow(S)	1/29	41	9.5	16.5	25.3 <sup>b</sup>
Summit Lake Pillow(M)	1/29	--	7.3	15.6	--
Tamarack	---	---	---	2.9	4.2
Tangent	2/2	32	8.8	12.8	17.2
Three Creek Butte	1/26	13	3.1	5.2	8.4
Three Creek Meadow	1/26	17	4.1	6.1	12.8
Three Creek Mdw. Plw.(T)	---	---	---	--	16.3 <sup>b</sup>
Three Creek Mdw. Plw.(S)	1/26	28	6.0	8.6	11.6 <sup>b</sup>
Three Creek Mdw. Plw.(M)	1/26	--	4.4	--	--
Waldo Lake	1/30	25	6.8	10.7	20.9
Whitewater Meadow *	1/30	18	4.0	--	1.6 <sup>b</sup>

### HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

Brooks Meadow		<sup>e</sup>		--	7.9 <sup>b</sup>
Clear Lake	1/29	16	3.6	4.4	7.7
Clear Lake Pillow(S)	1/29	33	7.2	--	--
Clear Lake Pillow(M)	---	---	---	---	---
Clear Lake Expt.	1/29	33	7.2	8.4	11.7
Greenpoint	1/26	21	6.0	9.9	12.4
Greenpoint Pillow(S)	1/26	29	9.0	11.2	--
Greenpoint Pillow(M)	1/26	--	6.4	10.4	--
Mt. Hood Test Site(T)	1/31	--	16.1	29.2	43.3 <sup>b</sup>
Mt. Hood Test Site(S)	1/31	70	23.5	36.6	15.3 <sup>b</sup>
Mt. Hood Test Site(M)	1/31	--	17.8	30.9	--
Mud Ridge Pillow(S)	1/30	36	10.0	10.5	13.7 <sup>b</sup>
Mud Ridge Pillow(M)	1/30	--	10.3	7.2	13.4 <sup>b</sup>
Red Hill	1/30	43	11.8	16.4	26.6
Red Hill Pillow(S)	---	---	---	17.3	--
Red Hill Pillow(M)	---	---	---	16.9	10.4 <sup>b</sup>
Still Creek	1/30	35	9.8	6.6	17.1
Switchback	1/29	19	5.3	7.7	11.5 <sup>b</sup>
Tilly Jane	1/28	40	11.6	23.5	26.7
Umbrella Falls	1/27	76	21.7	41.1	43.8 <sup>b</sup>

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1979

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont (In.)	Water Content (inches)	
				Last Yr.	Ave. <sup>c</sup>
LOWER COLUMBIA WATERSHEDS					
Blazed Alder Pillow(T)	N/R			--	9.2
Blazed Alder Pillow(S)	N/R				
Blazed Alder Pillow(M)	N/R			10.4	--
Mt. Hood Test Site(T)	1/31	--	16.1	29.2	43.3
Mt. Hood Test Site(S)	1/31	70	23.5	36.6	15.3
Mt. Hood Test Site(M)	1/31	--	17.8	30.9	--
Mud Ridge Pillow(S)	1/30	36	10.0	10.5	13.7
Mud Ridge Pillow(M)	1/30	--	10.3	7.2	13.4
No. Fork Res.(T)	1/31	--	6.3	5.3	3.8
No. Fork Res.(S)	---			6.0	10.3
No. Fork Res.(M)	---			6.5	5.0
Still Creek	1/30	35	9.8	6.6	17.1
WILLAMETTE WATERSHEDS					
Cascade Summit	1/31	28	7.2	12.0	20.8
Cascade Summit Pillow(S)	1/31	35	8.4	--	--
Cascade Summit Pillow(M)	---				
Champion	1/29	25	6.2	10.4	19.8
Clackamas Lake		e			
Clackamas Lake Plw.(S)		e			
Clackamas Lake Plw.(M)		e			
Clear Lake	1/29	16	3.6	4.4	7.7
Clear Lake Pillow(S)	1/29	33	7.2	--	--
Clear Lake Pillow(M)	---				
Clear Lake Expt.	1/29	33	7.2	8.4	11.7
Dead Horse Grade	2/1	22	6.1	1.2	11.8
Detroit (Town)	1/31	6	0.5	0.0	1.4
Detroit Dam	1/31	5	0.5	0.0	0.8
Golden Curry Creek	1/29	5	0.9	--	4.6
Hogg Pass	1/29	46	12.4	14.4	28.4
Hogg Pass Pillow(S)	1/29	49	13.5	17.0	--
Hogg Pass Pillow(M)	1/29	--	10.2	16.9	--
Jump Off Joe Pillow(S)	1/31	19	4.2	0.0	--
Jump Off Joe Pillow(M)	1/31	--	3.1	0.0	--
Laurel Mountain	DISCONTINUED				
Laying Creek	N/R			0.0	--
Lookout Point Dam	2/1	0	0.0	--	0.3
Lost Creek Ranch	2/1	6	0.7	0.0	3.9
Lund Park	N/R			0.0	0.1
Marion Forks	1/29	20	3.4	0.0	9.6
Marion Forks Pillow(S)	1/29	18	2.9	--	--
Marion Forks Pillow(M)	1/29	--	4.6	--	--
Marys Peak	2/1	8	1.0	0.2	6.1
McCredie Springs	1/31	2	0.5	0.0	0.5
McKenzie	2/1	47	13.5	14.6	31.6
McKenzie Pillow(S)	2/1	45	12.8	--	--
McKenzie Pillow(M)	---				
McKenzie Bridge	2/2	0	0.1	0.0	0.7
Mill City	DISCONTINUED				
Mt. Hood Test Site(T)	1/31	--	16.1	29.2	43.3
Mt. Hood Test Site(S)	1/31	70	23.5	36.6	15.3
Mt. Hood Test Site(M)	1/31	--	17.8	30.9	--
Oakridge	2/1	0	0.0	0.0	0.2
Peavine Ridge Pillow(T)	2/1	--	6.0 <sup>a</sup>	2.8	11.7
Peavine Ridge Pillow(S)	---				
Railroad Overpass	1/31	4	0.7	0.0	1.7
Railroad Overpass Plw.(S)	1/31	3	0.5	--	--
Railroad Overpass Plw.(M)	1/31	--	0.8	--	--
Saddle Mtn. Pillow(T)	N/R			0.2	1.7
Saddle Mtn. Pillow(S)	N/R			--	18.9
Saddle Mtn. Pillow(M)	N/R			--	--
Salt Creek Falls	1/31	16	3.4	1.4	11.3
Salt Creek Falls Plw.(S)	1/31	24	6.0	--	--
Salt Creek Falls Plw.(M)	---				

## SNOW

SNOW		THIS YEAR			PAST REC.	
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)		
				Last Yr.	Ave. <sup>c</sup>	
WILLAMETTE WATERSHEDS (CONT.)						
Santiam Junction	1/31	30	7.8	6.0	17.8	
Santiam Junction Plw.(S)	1/31	32	7.9	5.7	--	
Santiam Junction Plw.(M)	1/31	--	3.6	6.3	--	
Seine Creek Pillow(T)	1/29	--	2.0	0.0	1.3 <sup>b</sup>	
Seine Creek Pillow(S)	---					
Seine Creek Pillow(M)	---					
Still Creek	1/30	35	9.8	6.6	17.1	
Summit Lake Pillow(T)	1/31	--	7.6	--	15.7 <sup>b</sup>	
Summit Lake Pillow(S)	1/29	41	9.5	16.5	25.3 <sup>b</sup>	
Summit Lake Pillow(M)	1/29	--	7.3	15.6	--	
Timothy Lake	1/29	22	4.2	5.4	9.6 <sup>b</sup>	
Valsetz Summit	DISCONTINUED					
Vida	2/1	0	0.0	0.0	0.5	
Waldo Lake	1/30	25	6.8	10.7	20.9	
Weaver Creek	1/29	4	0.8	0.0	0.6 <sup>b</sup>	
White Branch Slide	2/1	6	1.1	0.0	6.3	
Whitewater Bridge	1/29	14	2.7	0.0	5.0	
ROGUE, UMPQUA WATERSHEDS						
Althouse	1/29	3	0.3	2.4	6.7	
Annie Spring	2/1	31	9.7	33.0	30.2	
Beaver Dam Creek	1/21	14	2.8	6.2	10.2	
Big Red Mountain	1/29	23	4.8	18.3	19.9	
Big Red Mountain Plw.(S)	---					
Big Red Mountain Plw.(M)	1/29	--	2.9	--	--	
Billie Creek Divide	1/29	18	5.1	11.6	15.3	
Billie Cr. Div. Pillow(S)	1/29	20	4.0	12.7	--	
Billie Cr. Div. Pillow(M)	1/29	--	4.7	11.6	12.3 <sup>b</sup>	
Caliban	1/26	17	3.7	25.2	25.3 <sup>b</sup>	
Caliban (Alternate)	1/26	17	4.8	22.4	18.7 <sup>b</sup>	
Champion	1/29	25	6.2	10.4	19.8 <sup>b</sup>	
Cold Springs Camp	2/1	28	7.7	21.1	24.1	
Cold Spgs. Camp Pillow(T)	N/R			--	21.6 <sup>b</sup>	
Cold Spgs. Camp Pillow(S)	2/1	25	7.0	15.5	19.4 <sup>b</sup>	
Cold Spgs. Camp Pillow(M)	2/1	--	5.4	13.9	--	
Deadwood Junction	1/31	13	2.5	1.0	7.2	
Diamond-Crater Summit	1/29	23	5.7	--	--	
Diamond Lake	1/29	11	2.6	--	14.3	
Diamond Lake Pillow(S)	1/29	14	3.5	--	--	
Diamond Lake Pillow(M)	---					
Fish Lake	1/29	15	4.1	5.1	10.4 <sup>b</sup>	
Fish Lake Pillow(S)	1/29	11	3.3	--	--	
Fish Lake Pillow(M)	---					
Fourmile Lake	1/29	18	5.7	11.2	14.1 <sup>b</sup>	
Fourmile Lake Pillow(S)	1/29	30	7.5	19.7	--	
Fourmile Lake Pillow(M)	1/29	--	8.2	18.1	10.4 <sup>b</sup>	
Grayback Peak	1/25	11	1.4	12.7	17.4	
Howard Prairie Reservoir	1/31	14	3.0	6.1	5.8	
Hyatt Prairie	1/31	8	1.7	2.0	6.4	
Hyatt Prairie Pillow(S)	---					
Hyatt Prairie Pillow(M)	1/31	--	1.4	--	--	
King Mountain #1	1/30	6	1.2	3.7	5.2 <sup>b</sup>	
King Mountain #2	1/30	7	1.2	1.2	3.5 <sup>b</sup>	
King Mountain #3	1/30	5	0.9	0.0	1.1 <sup>b</sup>	
King Mountain #4	1/30	4	0.5	0.0	0.1 <sup>b</sup>	
King Mountain #5	1/30	3	0.4	0.0	--	
King Mountain #6	1/30	3	0.5	0.0	--	
Little Red Mountain						
Mt. Ashland Switchback	1/26	17	4.7	24.7	24.6 <sup>b</sup>	
Mule Creek	1/30	7	1.1	0.0	6.6 <sup>b</sup>	
North Umpqua	1/30	11	2.8	3.8	11.6	
Page Mountain	1/29	6	1.0	0.0	4.1	
Park Headquarters	2/1	48	16.9	41.4	41.1	

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1979

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave <sup>c</sup>
ROGUE, UMPQUA WATERSHEDS (CONT.)					
Red Butte #1	1/30	10	1.8	1.9	8.8
Red Butte #2	1/30	8	1.5	0.4	6.0
Red Butte #3	1/30	6	1.0	0.0	3.1
Red Butte #4	1/30	6	0.8	0.0	1.6
Red Butte #5	1/30	4	0.8	0.0	0.5
Red Butte #6	1/30	0	0.0	0.0	--
Seven Mile	1/24	21	5.3	19.9	20.9
Seven Mile Pillow(S)	1/24	24	6.0	19.5	--
Seven Mile Pillow(M)	1/24	--	2.2	15.2	9.4
Silver Burn	2/1	8	1.6	3.0	10.4
Siskiyou Summit	1/30	5	1.2	1.1	6.6
Ski Bowl Road	1/26	15	3.2	20.8	20.6
South Fork Canal	2/1	0	0.0	0.0	3.0
Trap Creek	1/30	9	2.8	1.5	9.9
KLAMATH WATERSHEDS					
Annie Spring	2/1	31	9.7	33.0	30.2
Billie Creek Divide	1/29	18	5.1	11.6	15.3
Billie Cr. Div. Plw.(S)	1/29	20	4.0	12.7	--
Billie Cr. Div. Plw.(M)	1/29	--	4.7	11.6	12.3
Chemult Alternate	1/31	13	2.0	8.8	6.2
Chemult Alternate Plw.(S)	---	---	---	---	---
Chemult Alternate Plw.(M)	---	---	---	---	---
Chiloquin (PP&L)	---	---	---	--	1.9
Cold Springs Camp	2/1	28	7.7	21.1	24.1
Cold Spgs. Camp Plw.(T)	N/R	---	---	--	21.6
Cold Spgs. Camp Plw.(S)	2/1	25	7.0	15.5	19.4
Cold Spgs. Camp Plw.(M)	2/1	--	5.4	13.9	--
Crazyman Flat *	1/26	13	3.6	8.6	6.8
Crowder Flat (Calif.) *	1/26	4	1.1	1.6	2.6
Crystal (PP&L)	---	---	---	1.5	7.1
Diamond-Crater Summit	---	---	---	---	---
Dog Hollow *	1/26	2	0.6	0.1	1.0
Finley Corrals *	1/26	38	10.6	12.2	11.5
Fort Klamath (PP&L)	---	---	---	2.8	3.2
Fourmile Lake	1/29	18	5.7	11.2	14.1
Fourmile Lake Pillow(S)	1/29	30	7.5	19.7	--
Fourmile Lake Pillow(M)	1/29	--	8.2	18.1	--
Gerber	2/2	4	0.6	0.0	2.4
Harriman (PP&L)	---	---	---	1.4	4.1
Howard Prairie	1/31	14	3.0	6.1	5.8
Hyatt Prairie Reservoir	1/31	8	1.7	2.0	6.4
Hyatt Prairie Res.Plw.(S)	---	---	---	--	--
Hyatt Prairie Res.Plw.(M)	1/31	--	1.4	--	--
Kirk (PP&L)	---	---	---	5.6	5.6
Park Headquarters	2/1	48	16.9	41.4	41.1
Quartz Mountain	1/29	11	2.3	4.7	4.6
Quartz Mtn. Pillow(S)	1/29	15	2.9	--	--
Quartz Mtn. Pillow(M)	1/29	--	2.5	--	--
Seven Mile	1/24	21	5.3	19.9	20.9
Seven Mile Pillow(S)	1/24	24	6.0	19.5	--
Seven Mile Pillow(M)	1/24	--	2.2	15.2	9.4
State Line (Calif.) *	1/26	10	2.8	--	--
Strawberry	1/27	15	4.2	4.9	5.4
Strawberry Pillow(S)	---	---	---	---	---
Strawberry Pillow(M)	---	---	---	---	---
Summer Rim *	Late	Report	---	13.0	11.0
Summer Rim	e	e	---	---	---
Summer Rim Pillow(S)	e	e	---	---	---
Summer Rim Pillow(M)	e	e	---	---	---
Sycan Flat *	Late	Report	---	3.2	5.4
Taylor Butte	1/31	6	1.3	6.4	3.8
Taylor Butte Pillow(S)	1/31	7	1.5	--	--
Taylor Butte Pillow(M)	1/31	--	4.3	--	1.8

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave.†
LAKE COUNTY, GOOSE LAKE WATERSHEDS					
Adin Mountain (Calif.)	1/25	16	3.3	6.3	8.8
Bald Mountain (Nev.)	1/26	12	3.4	4.5	0.9 <sup>b</sup>
Bear Flat Meadow *	1/26	20	5.6	11.2	6.6
Camas Creek #1	1/30	21	5.9	6.8	7.3
Camas Creek #2	1/30	25	6.8	6.8	4.8
Cedar Pass (Calif.)	1/29	28	7.5	9.7	11.1
Colvin Creek *	1/26	12	3.4	4.3	3.3
Cox Flat *	1/26	6	1.7	6.8	4.8
Crowder Flat (Calif.) *	1/26	4	1.1	1.6	2.6
Dismal Swamp (Calif.) *	1/26	38	10.6	17.4	10.9
Finley Corrales *	Late	Report		12.2	11.5
Hart Mountain *	1/26	10	2.8	3.0	0.9
Little Bally Mtn.(Nev.) *	1/26	9	2.5	6.3	2.2
Mt. Bidwell (Calif.)		e			
North Star (Calif.)		e			
Patton Meadows *	1/26	32	9.0	16.2	11.3
Quartz Mountain	1/29	11	2.3	4.7	4.6
Quartz Mountain Plw.(S)	1/29	15	2.9	--	--
Quartz Mountain Plw.(M)	1/29	--	2.5	--	--
Rogger Meadows *	1/26	34	9.5	10.2	5.8 <sup>b</sup>
Sherman Valley *	1/26	26	7.3	7.2	7.3
Silver Creek	1/30	5	1.0	2.0	2.1
Silver Creek Pillow(S)	1/31	20	4.5	--	--
Silver Creek Pillow(M)	---				
State Line (Calif.) *	1/26	10	2.8	2.4	6.4
Strawberry	1/27	15	4.2	4.9	5.4 <sup>b</sup>
Strawberry Pillow(S)	---				
Strawberry Pillow(M)	---				
Summer Rim *	1/26	26	7.3	13.0	11.0 <sup>b</sup>
Summer Rim		e			
Summer Rim Pillow(S)		e			
Summer Rim Pillow(M)		e			
Sycan Flat *	1/26	13	3.6	3.2	5.4
HARNEY BASIN WATERSHEDS					
Blue Mountain Springs	1/30	35	7.9	10.9	12.1
Blue Mtn. Sprgs. Plw.(S)	1/30	39	9.0	12.5	11.8 <sup>b</sup>
Blue Mtn. Sprgs. Plw.(M)	1/30	--	10.2	14.0	9.0 <sup>b</sup>
Buck Pasture *	Late	Report		3.6	1.4
Buckskin Lake *	Late	Report		--	0.7 <sup>b</sup>
Call Meadows *	Late	Report		8.9	2.5 <sup>b</sup>
Delintment Lake		e			
Denio Creek *	Late	Report		3.5	0.5
Disaster Peak (Nev.)		e			
Emigrant Butte	2/1	21	4.1	4.4	2.9
Fish Creek *	Late	Report		18.0	16.3 <sup>b</sup>
Fish Creek		e			
Fish Creek Pillow(S)		e			
Fish Creek Pillow(M)		e			
Hart Mountain *				3.0	0.9
Idlewild Camp Alternate	2/1	20	4.7	3.8	4.2 <sup>b</sup>
Izee Summit	1/31	28	6.7	--	--
Lake Creek R.S.	1/30	33	6.9	--	7.6
Lake Creek R.S. Plw.(S)	1/30	33	8.0	8.5	--
Lake Creek R.S. Plw.(M)	1/30	--	6.5	3.7	6.9 <sup>b</sup>
Oregon Canyon *	Late	Report		4.8	3.7
Rock Spring	1/31	25	5.4	--	--
Rock Spring Pillow(S)	1/31	24	5.5	--	--
Rock Spring Pillow(M)	1/31	--	4.0	--	--
Silvies *	Late	Report		7.2	5.8 <sup>b</sup>
Silvies		e			
Silvies Pillow(S)		e			
Silvies Pillow(M)		e			
Snow Mountain	2/1	37	7.8	10.4	9.5 <sup>b</sup>
Snow Mountain Plw.(T)	2/1	--	6.4	5.5	5.3 <sup>b</sup>
Snow Mountain Plw.(S)	2/1	32	7.0	6.0	8.6 <sup>b</sup>
Snow Mountain Plw.(M)	---				
Starr Ridge	1/31	24	5.6	4.1	4.6
Starr Ridge Pillow(S)	1/31	27	6.0	--	--
Starr Ridge Pillow(M)	1/31	--	3.1	--	--
Stinking Water	1/26	16	3.2	4.0	2.1
Trout Creek *	Late	Report		11.1	4.5
"V" Lake *	Late	Report		7.2	4.0

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 2

FEBRUARY 1, 1979

## SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average <sup>c</sup>
OWYHEE, MALHEUR WATERSHEDS							
Bear Creek (Nev.)	7800	72	16.8	Discontinued			
Big Bend (Nev.)	6700	48	16.7	Discontinued			
Blue Mountain Spring	5900	42	16.9	1/30/79	6.1	11.6	9.0
Mud Flat (Ida.)	5500	48	12.8	Discontinued			
Rodeo Flat (Nev.)	6800	42	11.0	Discontinued			
Taylor Canyon (Nev.)	6200	48	15.1	Discontinued			
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS							
Blue Mountain Summit	5100	36	16.8	1/25/79	8.9	12.5	10.4
Dooley Mountain	5430	36	9.2	1/29/79	2.6	3.0	3.5
Emigrant Springs	3925	48	22.3	1/31/79	9.0	20.6	19.3
Ladd Summit	3730	48	18.9	1/29/79	9.2	10.6	10.5
Moss Springs	5850	36	25.8	1/29/79	14.0	14.3	10.5
Tollgate	5070	48	23.6	1/26/79	12.8	16.8	14.4
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	1/30/79	8.8	13.5	12.9
Emigrant Springs	3925	48	22.3	1/31/79	9.0	20.6	19.3
Tollgate	5070	48	23.6	1/26/79	12.8	16.8	17.4
UPPER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	1/30/79	8.8	13.5	12.9
Blue Mountain Spring	5900	42	16.9	1/30/79	6.1	11.6	9.0
Blue Mountain Summit	5100	36	16.8	1/25/79	8.9	12.5	10.4
Derr	5670	24	9.0	2/2/79	5.2	8.9	7.6
Marks Creek	4540	36	14.1	N/R		11.3	11.2
Snow Mountain	6300	48	16.7	2/1/79	11.7	13.9	13.4
Starr Ridge	5150	36	10.6	1/31/79	7.1	10.6	9.5
UPPER DESCHUTES, CROOKED WATERSHEDS							
Derr	5670	24	9.0	2/2/79	5.2	8.9	7.6
Marks Creek	4540	36	14.1	N/R		11.3	11.2
Snow Mountain	6300	48	16.7	2/1/79	11.7	13.9	13.4
KLAMATH WATERSHEDS							
Quartz Mountain	5230	48	15.3	1/29/79	5.0	9.7	8.3
LAKE COUNTY, GOOSE LAKE WATERSHEDS							
Camas Creek	5720	42	14.5	1/30/79	10.5	13.1	11.8
Quartz Mountain	5230	48	15.3	1/29/79	5.0	9.7	8.3
HARNEY BASIN WATERSHEDS							
Blue Mountain Spring	5900	42	16.9	1/30/79	6.1	11.6	9.0
Silvies	6900	48	16.4	<sup>e</sup>			
Snow Mountain	6300	48	16.7	2/1/79	11.7	13.9	13.4
Starr Ridge	5150	36	10.6	1/31/79	7.1	10.6	9.5
Willow-Bald	5000	24	6.6	2/1/79	4.6	6.6	5.4
(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.							

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 3

FEBRUARY 1, 1979

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average <sup>c</sup>
Arbuckle Mountain (Morrow County)	5400	From 12/26 To 1/26	3.50"		
Billie Creek Divide (Jackson County)	5310	From 12/27 To 1/29	6.24"		
Blue Mt. Springs (Grant County)	5900	From 12/28 To 1/30	3.81"		
Bourne (Baker County)	5800	From 10/31 To 1/25	11.16"		
Bowman Springs (Union County)	4580	From 12/26 To 1/26	2.75"		
Cascade Summit (Lane County)	4880	From 12/26 To 1/31	5.28"		
Chemult (Klamath County)	4760	From 10/25 To 1/31	4.56"		
Clear Lake (Wasco County)	3500	From 12/20 To 1/29	5.04"		
Cold Springs (Klamath County)	6100	From 10/19 To 2/1	19.92"		
County Line (Umatilla County)	4800	From 12/29 To 1/29	2.64"		
Derr (Wheeler County)	5670	From 6/24 To 2/2	22.20"		
Diamond Lake (Douglas County)	4600	From 12/21 To 1/29	7.44"		
Eilertson Meadow (Baker County)	5400	From 12/27 To 1/25	1.80"		
Fish Lake (Jackson County)	4665	From 12/27 To 1/29	8.04"		
Fourmile (Klamath County)	6000	From 10/20 To 1/29	19.68"		
Gold Center (Grant County)	5340	From 12/27 To 1/25	2.52"		
Greenpoint (Hood River County)	3200	From 9/30 To 1/26	19.68"		
High Ridge (Umatilla County)	4150	From 12/29 To 1/26	3.84"		
Hogg Pass (Jefferson County)	4755	From 12/28 To 1/29	7.08"		
Jump Off Joe (Linn County)	3400	From 12/29 To 1/31	10.08"		
Lake Creek (Grant County)	5120	From 12/28 To 1/30	1.40"		
Lucky Strike (Umatilla County)	5050	From 12/26 To 1/26	3.00"		

# BASIC DATA SUPPLEMENT 3

FEBRUARY 1, 1979

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION		CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average <sup>c</sup>
Madison Butte (Morrow County)	5250	From 12/26 To 1/26	2.04"		
Marion Forks (Linn County)	2730	From 12/28 To 1/29	4.56"		
Marks Creek (Crook County)	4540	From 1/2 To 1/29	8.25"		
Moss Springs (Union County)	5850	From 10/31 To 1/29	17.04"		
Mud Ridge (Clackamas County)	3800	From 12/19 To 1/30	6.72"		
Ochoco Meadows (Crook County)	5200	From 6/29 To 1/31	15.96"		
Quartz (Lake County)	6300	From 1/3 To 1/29	2.28"		
Railroad Overpass (Lane County)	2750	From 12/26 To 1/31	6.96"		
Rock Springs (Grant County)	5100	From 12/28 To 1/31	3.26"		
Santiam Junction (Lane County)	3750	From 12/28 To 1/31	5.52"		
Schneider Meadows (Baker County)	5400	From 8/8 To 1/26	17.88"		
Seven Mile (Klamath County)	5725	From 10/19 To 1/24	20.40"		
Starr Ridge (Grant County)	5156	From 1/3 To 1/31	3.00"		
Taylor Butte (Klamath County)	5040	From 12/20 To 1/31	3.24"		
Taylor Green (Baker County)	5740	From 8/1 To 1/29	17.76"		
Tipton (Baker County)	5100	From 12/27 To 1/25	3.00"		
Wolf Creek (Union County)	5700	From 10/26 To 1/25	9.00"		
Hyatt Prairie (Jackson County)	4900	From 10/20 To 1/31	13.80"		
Irish-Taylor (Deschutes County)	5500	From 10/24 To 1/31	22.68"		
New Crescent Lake (Klamath County)	4800	From 10/31 To 1/29	13.68"		
Summit Lake (Klamath County)	5600	From 10/31 To 1/29	21.84"		
Three Creek Meadows (Deschutes County)	5650	From 10/25 To 1/26	13.44"		
(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.					





NUMBER	NAME	LOCATION	ELEV	NUMBER	NAME	LOCATION	ELEV	NUMBER	NAME	LOCATION	ELEV	NUMBER	NAME	LOCATION	ELEV	NUMBER	NAME	LOCATION	ELEV	
OWYHEE, MALHEUR WATERSHEDS																				
Owyhee River																				
1608	Antelope Ridge	(Ida)	20	SS	1E	5900	16H3AP	Midas	(Nev)	18	39N	46E	7200	18E20	Eldorado Pass	20	14S	38E	4600	
1609	Sattle Creek	(Ida)	10	11S	1E	5700	16G7MP	Mud Flat	(Ida)	34	9S	2W	5500	18E26a	Flag Prairie	32	16S	36E	4750	
1610	Bear Creek	(Nev)	31	46N	58E	7800	17H6a	Oregon Canyon		8	40S	40E	6950	18E18	Lake Creek	10	16S	33E	5200	
1611	Big Bend	(Nev)	30	45N	56E	6700	16G11a	Quinn Ridge	(Nev)	9	47N	41E	6300	18E22a	Logan Valley	13	16S	33E	5100	
1612	Buckskin, Lower	(Nev)	25	45N	39E	6700	15H3A	Rodeo Flat	(Nev)	32	11S	4W	6650	18F1	Rock Spring	23	18S	32E	5100	
1613	Buckskin, Upper	(Ida)	11	45N	39E	7200	16F3AP	76 Creek	(Nev)	6	44N	58E	6800	18F4P	Stinking Water	34	21S	34E	4800	
1614	Bull Basin	(Ida)	29	12S	5W	6600	16G1PA	Silver City	(Ida)	6	5S	3W	6400							
1615	Columbia Basin	(Nev)	31	44N	53E	6650	16G1P	South Mountain No. 2	(Ida)	35	32S	33E	6900							
1616	Disaster Peak	(Nev)	8	47N	34E	6500	15H19a	Stag Mountain	(Nev)	10	8S	5W	6340							
1617	Fawn Creek	(Nev)	2	45N	52E	7000	16F6a	Succor Creek	(Ida)	32	41N	58E	7800							
1618	Fish Creek	(Nev)	4	33S	3E	7900	15H9MP	Taylor Canyon	(Nev)	35	39N	53E	6100							
1619	Fry Canyon	(Nev)	33	40N	54E	6800	16H7a	Toe Jam	(Nev)	29	40N	50E	7700							
1620	Golo Creek	(Nev)	31	43N	54E	6700	15H8	Tremewan Ranch	(Nev)	9	39N	55E	3700							
1621	Granite Peak	(Ida)	22	44N	39E	7800	18G5a	Trout Creek		10	41S	36E	7800							
1622	Hyatt Pasture	(Ida)	31	SS	2W	5800	18G7a	"v" Lake		31	35S	32E	6600							
1623	Jack Creek, Lower	(Nev)	18	42N	53E	6800	16G12a	Vaught Ranch	(Ida)	10	11S	1W	5950							
1624	Jack Creek, Upper	(Nev)	9	42N	53E	7250	16G13a	War Eagle	(Ida)	20	5S	3W	7700							
1625	Jack Peak	(Nev)	26	42N	53E	8420														
1626	Jordan Valley	(Nev)	2	30S	46E	4390														
1627	Laurel Draw	(Nev)	20	45N	53E	6700														
1628	Lookout Butte	(Nev)	2	40S	47E	6650														
1629	Louse Canyon	(Nev)	27	43S	44E	6440														
1630	Martin Creek	(Nev)	18	44N	40E	6700														
1631	Merritt Mountain	(Nev)	10	46N	54E	7000														
Burnt, Powder, Pine, Grande Ronde, Imnaha Watersheds																				
Burnt River																				
1701	Aneroid Lake No. 1		16	4S	45E	7480	1701	Aneroid Lake No. 1		16	4S	45E	7480	1701	Aneroid Lake No. 1		16	4S	45E	7480
1702P	Aneroid Lake No. 2		16	4S	45E	7300	1702P	Aneroid Lake No. 2		16	4S	45E	7300	1702P	Aneroid Lake No. 2		16	4S	45E	7300
17014a	Big Sheep		33	4S	46E	6200	17014a	Big Sheep		33	4S	46E	6200	17014a	Big Sheep		33	4S	46E	6200
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS																				
Rock Creek																				
1903	Madison Butte		30	5S	27E	5250	1903	Madison Butte		30	5S	27E	5250	1903	Madison Butte		30	5S	27E	5250
Umatilla River																				
1902P	Arbuckle Mountain		33	4S	29E	5400	1902P	Arbuckle Mountain		33	4S	29E	5400	1902P	Arbuckle Mountain		33	4S	29E	5400
18020	Bowman Springs		29	2S	35E	4580	18020	Bowman Springs		29	2S	35E	4580	18020	Bowman Springs		29	2S	35E	4580
20E4	Butte Creek Summit		5	8S	22E	3930	20E4	Butte Creek Summit		5	8S	22E	3930	20E4	Butte Creek Summit		5	8S	22E	3930
1804M	Emigrant Springs		29	1N	35E	3925	1804M	Emigrant Springs		29	1N	35E	3925	1804M	Emigrant Springs		29	1N	35E	3925
18019	High Ridge		31	3N	38E	4150	18019	High Ridge		31	3N	38E	4150	18019	High Ridge		31	3N	38E	4150
1806P	Lucky Strike		28	3S	32E	5050	1806P	Lucky Strike		28	3S	32E	5050	1806P	Lucky Strike		28	3S	32E	5050
1805	Meacham		24	1S	35E	4300	1805	Meacham		24	1S	35E	4300	1805	Meacham		24	1S	35E	4300
1803	Tollgate		32	4N	38E	5070	1803	Tollgate		32	4N	38E	5070	1803	Tollgate		32	4N	38E	5070
Walla Walla River																				
18016	Blue Mountain Camp		35	4N	37E	4300	18016	Blue Mountain Camp		35	4N	37E	4300	18016	Blue Mountain Camp		35	4N	37E	4300
1803	Tollgate		32	4N	38E	5070	1803	Tollgate		32	4N	38E	5070	1803	Tollgate		32	4N	38E	5070
Crooked River																				
19E3MP	Oerr		14	13S	23E	5670	19E3MP	Oerr		14	13S	23E	5670	19E3MP	Oerr		14	13S	23E	5670
20E1MP	Marks Creek		25	12S	19E	4540	20E1MP	Marks Creek		25	12S	19E	4540	20E1MP	Marks Creek		25	12S	19E	4540
20E2	Ochocho Meadows		21	13S	20E	5200	20E2	Ochocho Meadows		21	13S	20E	5200	20E2	Ochocho Meadows		21	13S	20E	5200
19F1	Snow Mountain		1	19S	26E	6220	19F1	Snow Mountain		1	19S	26E	6220	19F1	Snow Mountain		1	19S	26E	6220
19E4	Tamarack		8	15S	25E	4800	19E4	Tamarack		8	15S	25E	4800	19E4	Tamarack		8	15S	25E	4800
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS																				
Hood River																				





# The Following Organizations Cooperate in the Oregon Snow Survey Work

## STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon Department Of Water Resources
- Soil and Water Conservation Districts of Oregon

## COUNTY

- Douglas County Water Resources Survey

## FEDERAL

- Department of Agriculture
  - Cooperative Extension Service
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - NOAA, National Weather Service
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Land Management
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
- Department of National Defense
  - Corps of Army Engineers

## PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific National

## MUNICIPALITIES

- City of Baker
- City of La Grande
- City of Portland
- City of The Dalles
- City of Walla Walla

## IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale - Oregon Irrigation District
- Warm Springs Irrigation District

## PRIVATE ORGANIZATIONS

- The Crag Rats, Hood River, Oregon

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*"The Conservation of Water begins  
with the Snow Survey"*

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